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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/741,045 | 12/21/2000 | Sung-Kon Kim | 3430-0154P | 5517 |

2292 7590 02/26/2004

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| EXAMINER |
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DUONG, THOI V

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| ART UNIT | PAPER NUMBER |
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2871

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/741,045

Applicant(s)

KIM, SUNG-KON

Examiner

Thoi V Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 ~~is~~ are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 ~~is~~ are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-5, 7, 9 and 10 stand rejected under 35 U.S.C. 102(e) as being anticipated by Nagakubo et al. (USPN 6,219,117 B1).

As shown in Figs. 1 and 3, Nagakubo et al. discloses a liquid crystal display device, comprising:

a liquid crystal panel including two substrates with a liquid crystal layer interposed therebetween;

a back light device including:

a) at least one lamp 8;

b) a light guide plate 5 for guiding light emitting from the lamp;

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c) a diffusing sheet 4 for diffusing light emitting from the light guide plate;

d) at least one prism sheet 3 located on the diffusing sheet, concentrating light (col. 6, lines 30-34);

e) a protecting sheet 2 located on the prism sheet;

f) a reflector 6 located under the light guide plate, reflecting light directing downward the light guide plate,

wherein an edge portion of the diffusing sheet adjacent to the lamp includes a printing portion 4a made of colorless ink (white material) containing a light scattering agent (col. 7, lines 22-47);

wherein the light guide plate has a plurality of patterns 5b (col. 6, lines 42-44);

wherein there are two lamps (col. 14, lines 9-15); and

wherein light reflected from a bottom surface of the device causes constructive interference with light emitting from the lamp, whereby a bright line is prevented (col. 14, lines 16-41).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Nagakubo et al. (USPN 6,219,117 B1) as applied to claims 1-5, 7, 9 and 10 above in view of Mashino et al. (USPN 5,886,759).

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Nagakubo et al. discloses a liquid crystal display device that is basically the same as that recited in claims 6 and 8 except for the light guide plate having a plurality of dot patterns. As shown in Fig. 1A, Mashino et al. discloses a back light device comprising a light guide plate 37 having a pattern of a plurality of light diffusion dots 67 on the underside of the light guide plate for transmitting light introduced into the light guide plate and subjected to total reflection (col. 4, lines 34-38). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the liquid crystal display of Nagakubo et al. with the teaching of Mashino et al. by forming a light guide plate having a plurality of dot patterns for effectively transmitting light introduced into the light guide.

Response to Arguments

5. Applicant's arguments filed October 31, 2003 have been fully considered but they are not persuasive.

Applicant argued that Nagakubo utterly fails to disclose or suggest "a printing portion made of colorless ink containing a light scattering agent." That is, Nagakubo discloses a translucent white material can transmit light to a certain extent. The Examiner disagrees with the Applicant's remarks because, as a part of the diffusing sheet 4, the printing portion 4a is made of a white material which not only transmits a part of light from the backlight source but also makes irregular reflection the remaining light from the backlight source in the light guide plate (column 7, lines 22-35). Accordingly, the printing portion 4a also has a scattering function. Moreover, according to Merriam Webster's Collegiate Dictionary, Tenth Edition, "white" is defined as "free

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from color" (page 1348) and "colorless" is defined as "lacking color" (page 227).

Therefore, a "colorless ink" is the same as an "ink having a white material." Thus,

Nagakubo anticipates the invention as set forth in claims 1 and 3.

Finally, the reference of Mashino is employed for teaching a light guide plate having a multiplicity of light diffusion dots as set forth in claims 6 and 8.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

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Thoi Duong 

01/28/2004


TOANTON
PRIMARY EXAMINER